



CENTER on
SOCIAL
DISPARITIES
in HEALTH



University of California
San Francisco

The Social Determinants of Health and Infectious Disease

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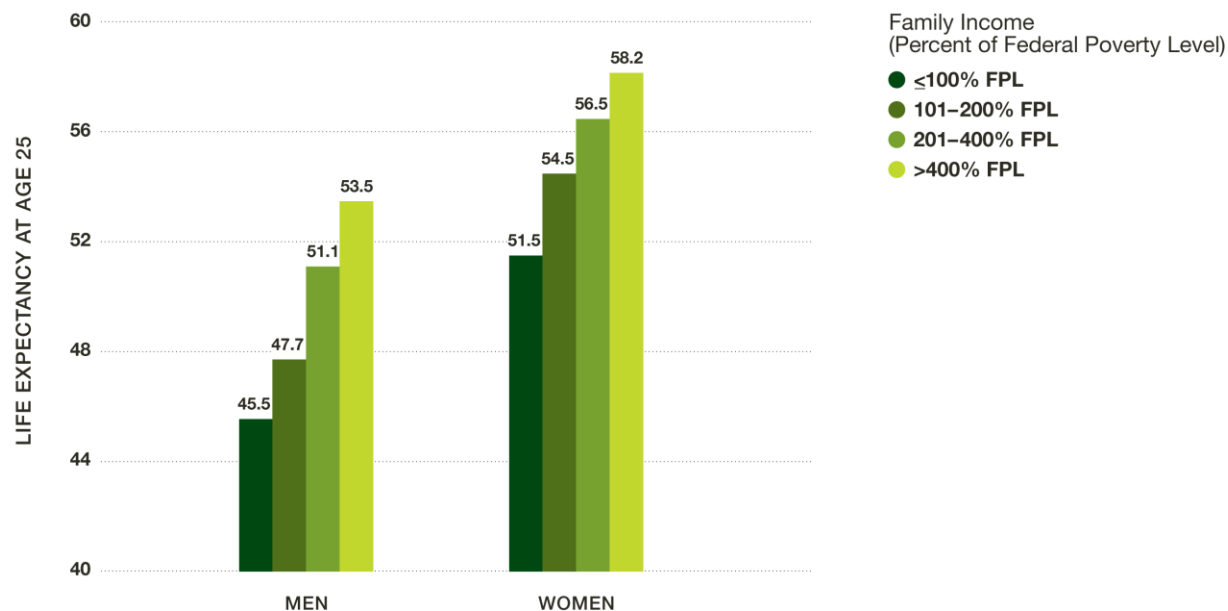
Social determinants of health (SDOH) and infectious disease

- SDOH: Circumstances of our lives –apart from medical care--that plausibly could (a) affect health & (b) be shaped by social policies
- Review current concepts and knowledge in the field of social determinants of health directly or indirectly relevant to I.D.
- The socioeconomic gradient in health and its implications
- Growing knowledge of pathways and mechanisms by which social advantage/disadvantage in many dimensions could affect health
- Analytic frameworks that can guide measurement, research, policy, and practice

Life expectancy varies by income, across the income spectrum

Higher Income, Longer Life

Adult life expectancy* increases with increasing income. Men and women in the highest-income group can expect to live at least six and a half years longer than poor men and women.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco; and Norman Johnson, U.S. Bureau of the Census.

Source: National Longitudinal Mortality Study, 1988–1998.

*This chart describes the number of years that adults in different income groups can expect to live *beyond age 25*. For example, a 25-year-old woman whose family income is at or below 100 percent of the Federal Poverty Level can expect to live 51.5 more years and reach an age of 76.5 years.

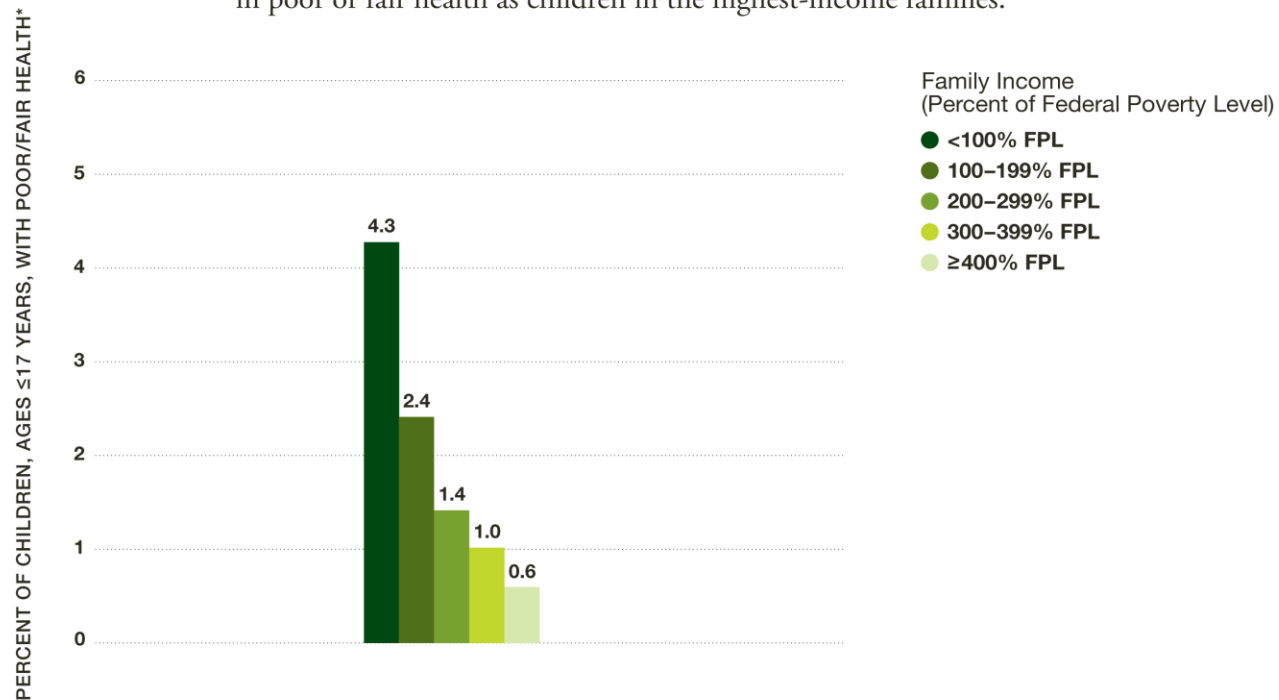
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Child health varies by income— across the income spectrum

Parents' Income, A Child's Chances for Health

Children in poor families are about seven times as likely to be in poor or fair health as children in the highest-income families.



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Source: National Health Interview Survey, 2001–2005.

*Age-adjusted

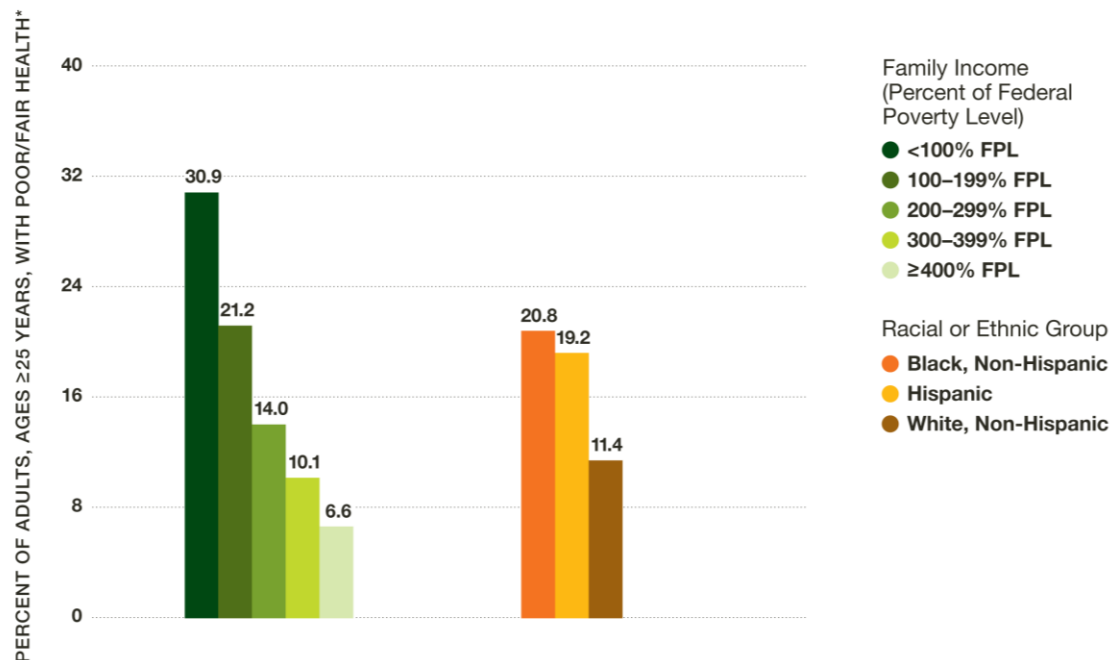
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Adults' self-reported poor or fair health varies by (a) income & (b) race/ethnicity

Health Varies by Income and Across Racial or Ethnic Groups

Lower income generally means worse health. Racial or ethnic differences in health status are also evident: Poor or fair health is much more common among black and Hispanic adults than among white adults.



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Source: National Health Interview Survey, 2001–2005.

*Age-adjusted

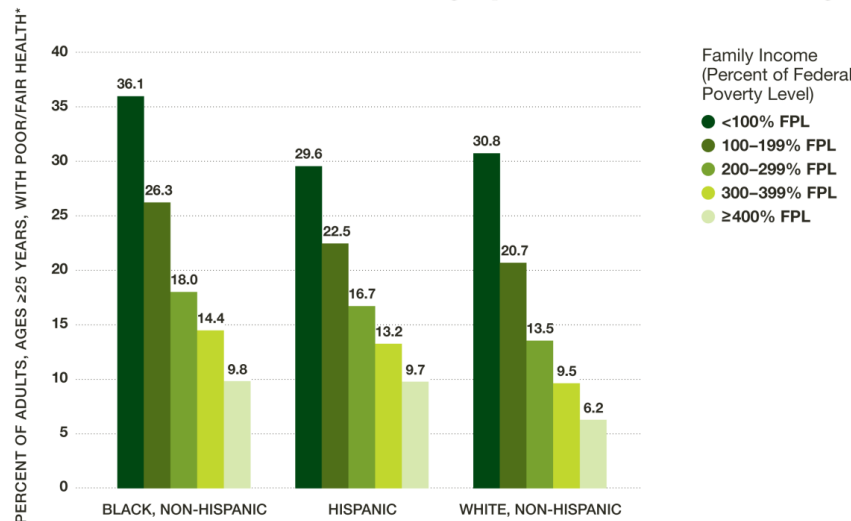
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Higher income, better adult health -- across income and racial/ethnic groups

Income Is Linked With Health Regardless of Racial or Ethnic Group

Differences in health status by income do not simply reflect differences by race or ethnicity; differences in health can be seen within each racial or ethnic group. Both income and racial or ethnic group matter.



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Source: National Health Interview Survey, 2001-2005.

*Age-adjusted

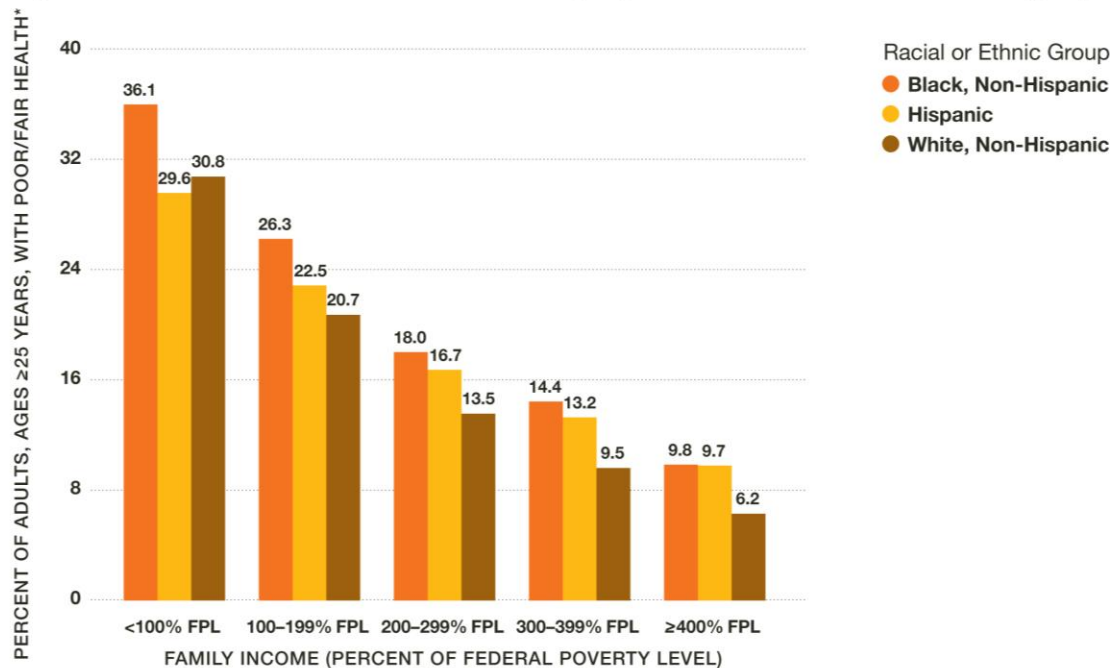
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Poor/fair adult health varies by race or ethnic group, within income groups

Racial or Ethnic Differences in Health Regardless of Income

Racial or ethnic disparities do not simply reflect differences in income. Racial or ethnic disparities in the likelihood of poor or fair health are seen within each income group. Both income and racial or ethnic group matter.



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Source: National Health Interview Survey, 2001-2005.

*Age-adjusted

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What influences health?

- Medical care
 - Genetic makeup
 - Climate & natural physical environment
 - Behaviors, nutrition
 - What else?
 - And what influences the influences?
-



How could income affect health?

Income directly shapes:

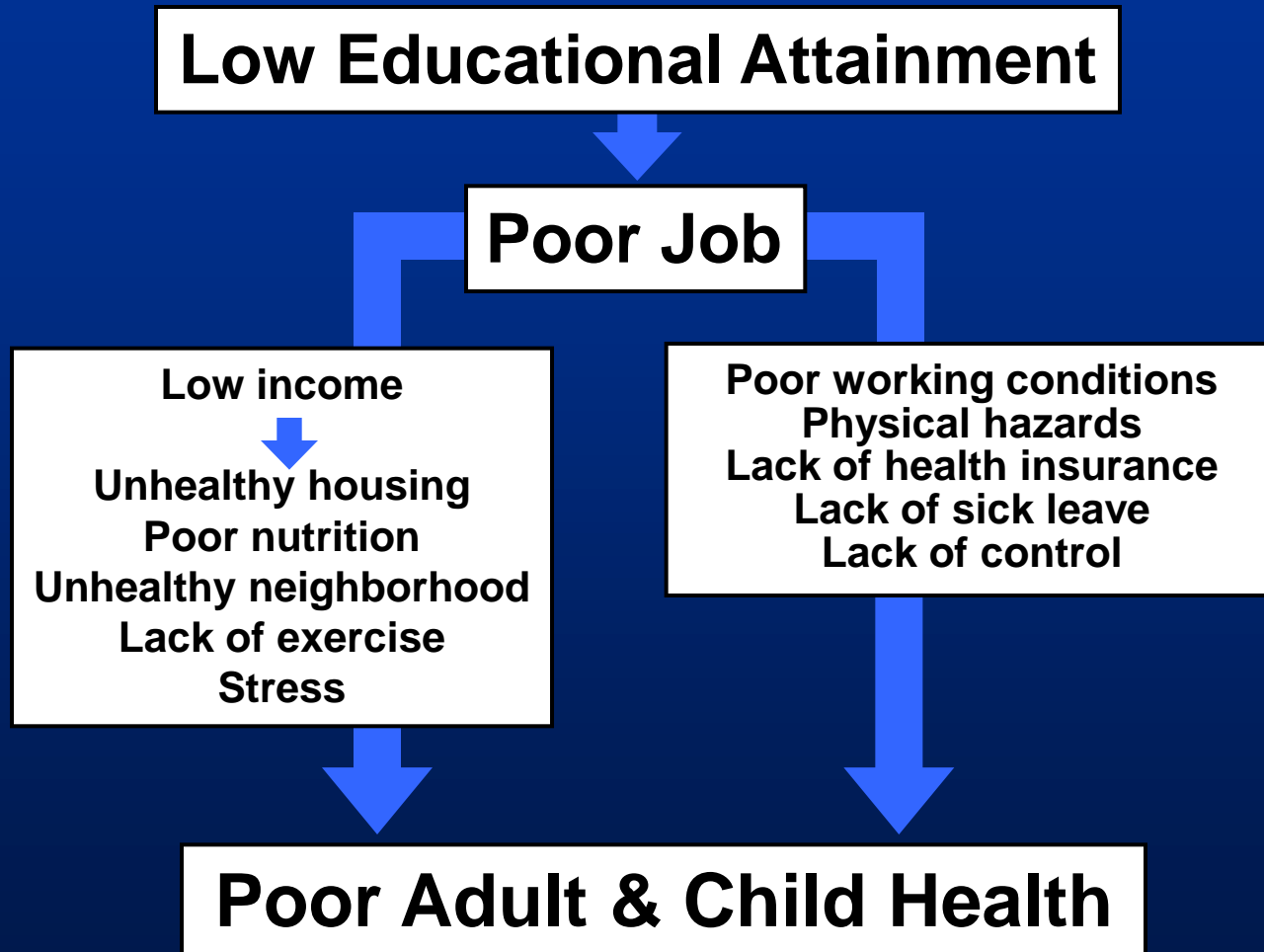
- Medical care
- Housing quality
- Nutrition & physical activity options
- Neighborhood conditions
- Social networks & support
- Stress

Parents' income shapes the next generation's:

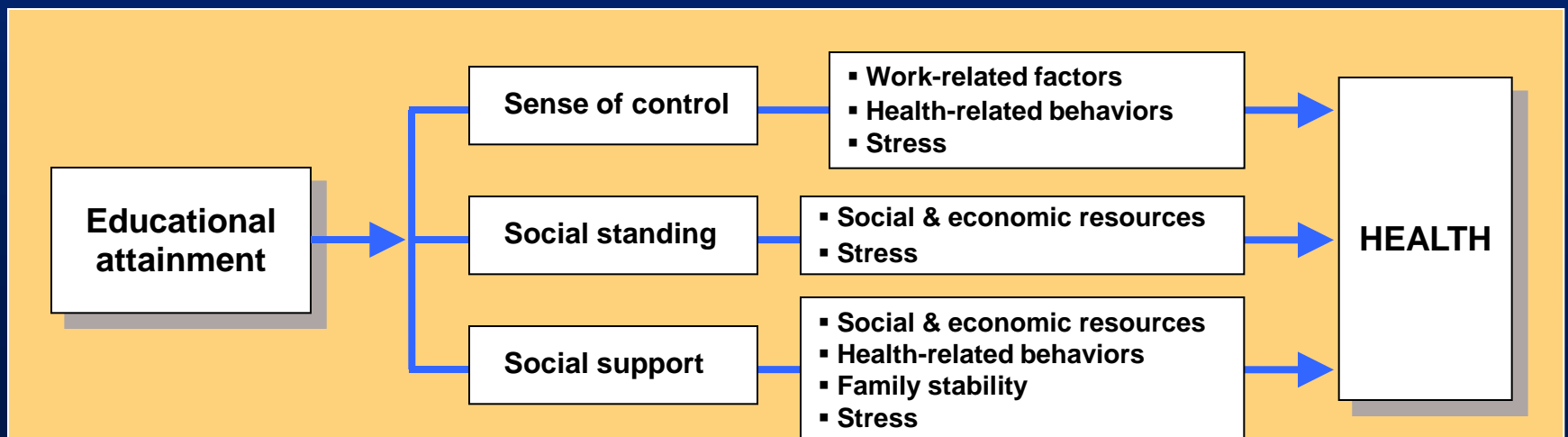
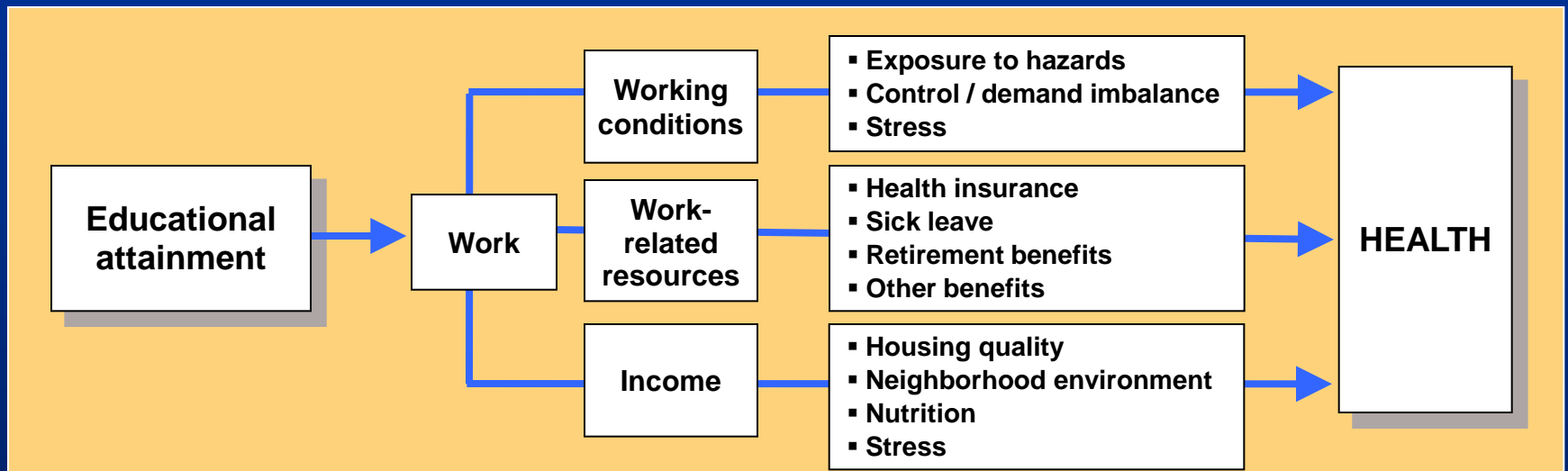
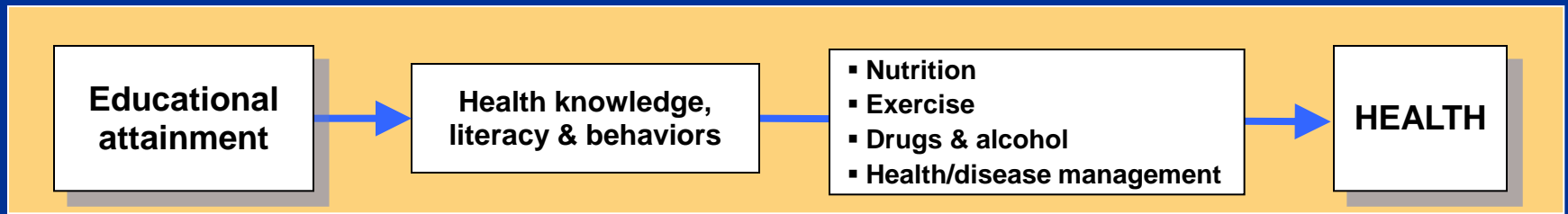
- Education
- Working conditions (physical & psychosocial)
- Income

What influences health?

What influences the influences?



How could education affect health?



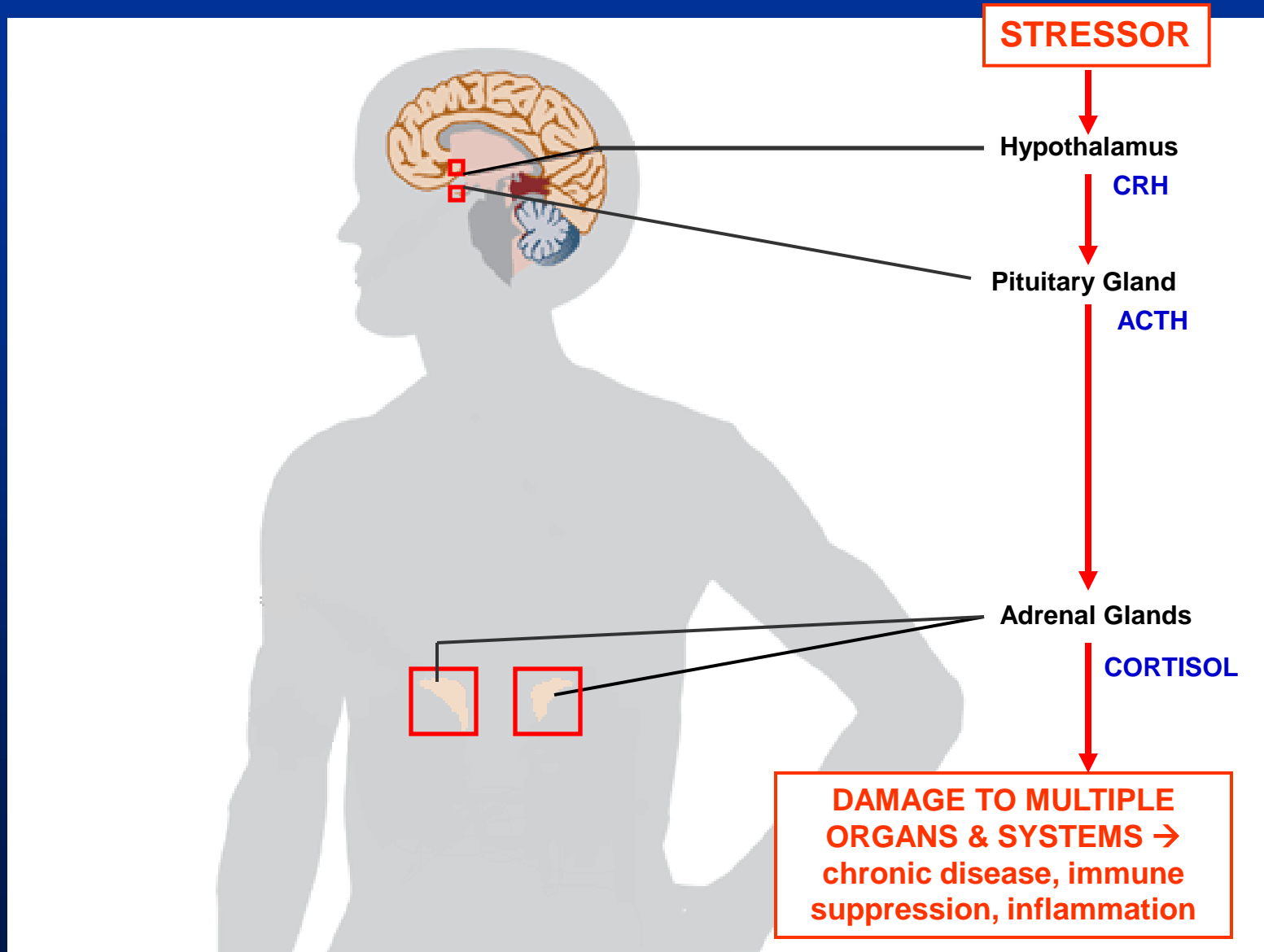


How could a neighborhood affect health?

- Physical danger from crime
- Safe places to exercise
- Air pollution, other toxics
- Access to healthy food
- Quality of schools
- Role models, peer pressure
- Social networks & support
- Stress, fear, anxiety, despair
- Blacks & Hispanics live in different kinds of neighborhoods than Whites with similar incomes



Chronic stress, chronic disease, & infection



Chronic stress. Cumulative effects of stress over the life course

- Poverty/near-poverty is often stressful
 - Chronic stress or stress during critical periods could lead to ill health in adulthood through neuro-endocrine, immune, inflammatory pathways
 - E.g., adult chronic disease (heart disease, diabetes)
 - Low birthweight, prematurity
 - Could cause neuro-endocrine dysregulation with lifelong effects
 - Cumulative stress over lifetime
-

What about racial/ethnic disparities?

- Compared with whites, blacks and Hispanics:
 - Have less income and schooling
 - At a given educational level, have lower incomes
 - At a given income level
 - Have far less wealth
 - Live in worse-off neighborhoods
 - At a given income/educational level, are more likely to have grown up in disadvantaged families
- All these can influence health
 - via multiple, complex pathways, including stress



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Racial/ethnic disparities

- Race/ethnic group often captures unmeasured socioeconomic factors
 - Depth of poverty, wealth, educational quality, neighborhood conditions, childhood experience
 - Health-damaging or -promoting exposures
 - More stress, fewer resources to cope
- Added stress due to societal legacy of discrimination
 - Not just overt incidents or intentional bias
 - Pervasive vigilance, anticipating unfair treatment or judgment
 - Vicarious experiences of loved ones/group identification

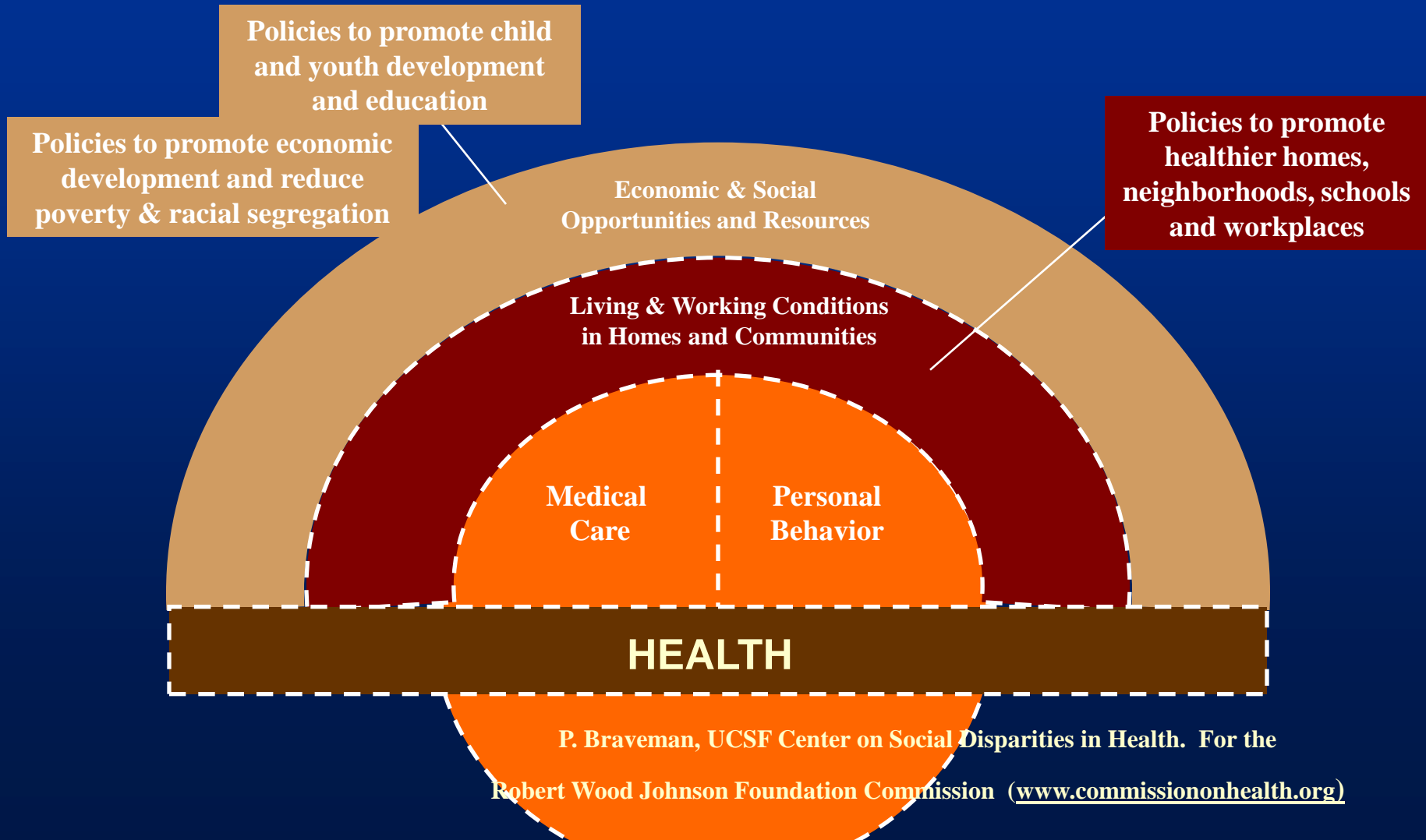


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Inadequate socioeconomic data: an obstacle to understanding and addressing health disparities

- Health data identifying race/ethnicity but not key social factors can reinforce racial/ethnic stereotypes and unfounded assumptions about biology or “culture”
- We need information on **both** racial/ethnic group and key socioeconomic factors
 - Different dimensions, levels, & life stages

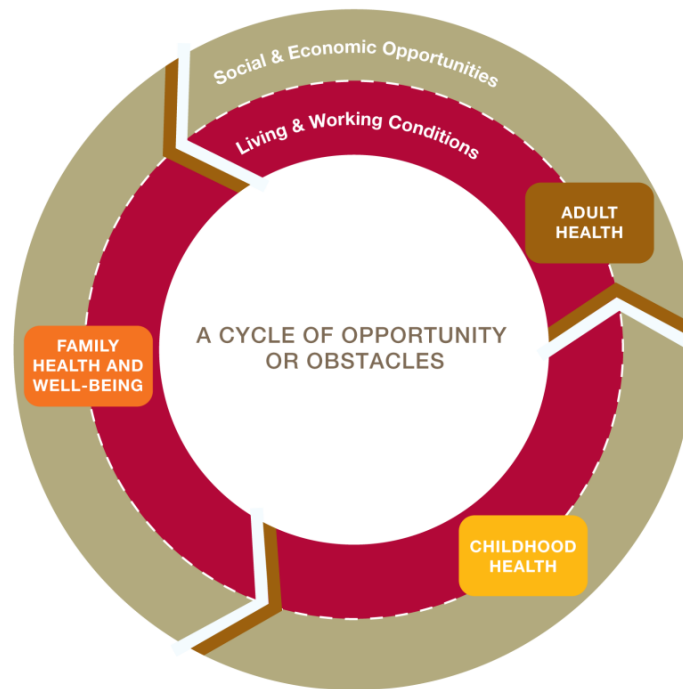
Widening the focus: Seeking the causes of the causes



Understanding how health is transmitted across lifetimes and generations

Social Advantage and Health Across Lifetimes and Generations

Social disadvantage and health disadvantage accumulate over time, creating ever more daunting obstacles to health.

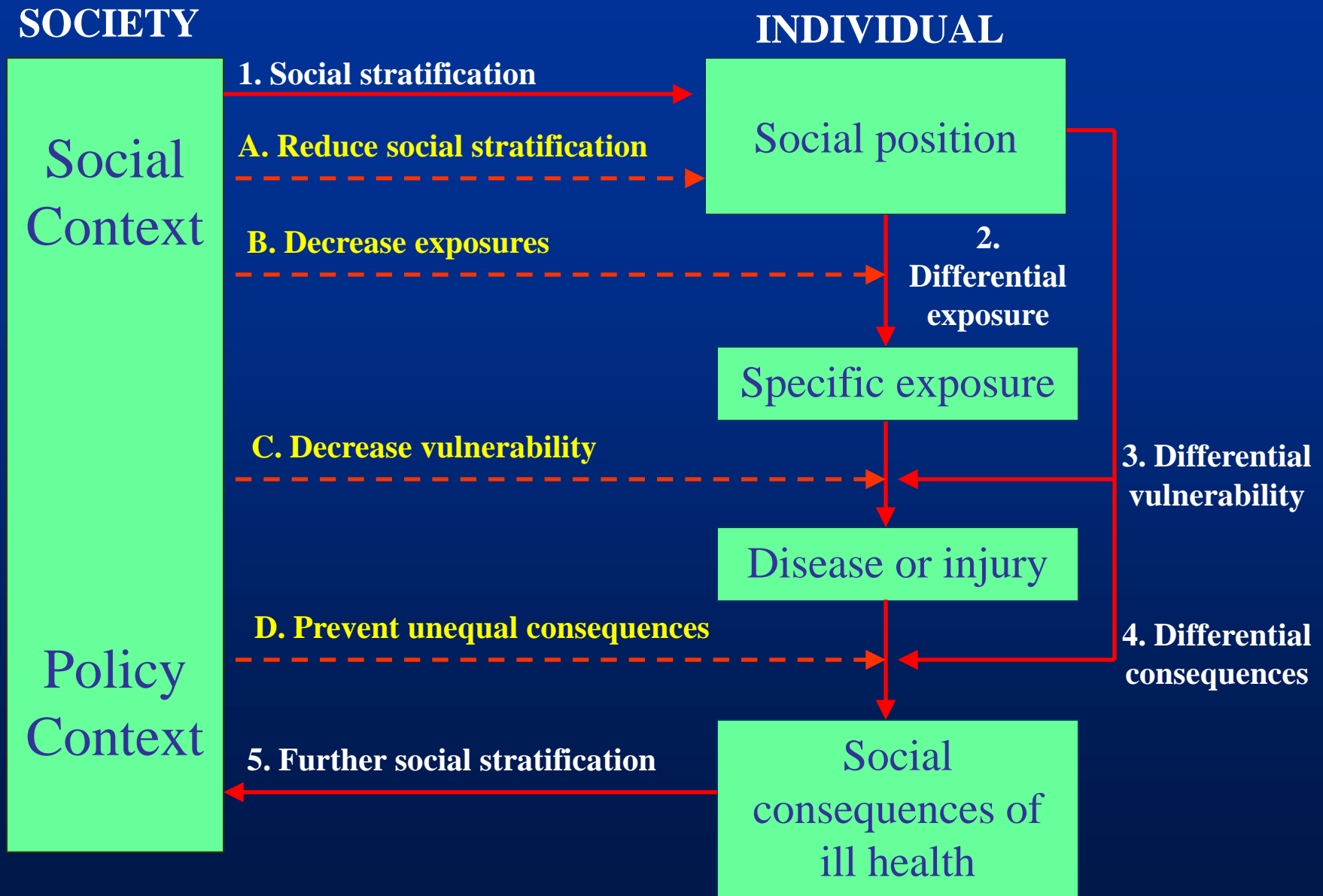


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What creates health disparities by race & class ?



Implications for I.D. research, policy and practice

- More adequate consideration of social factors in ongoing data sources & 1-time studies –even if not the main focus
 - Better measurement
 - Better conceptualization: What do income, education, and race/ethnic group represent? Possible pathways and mechanisms
- Consider the causes of the causes: Consider joint action with other sectors to reduce:
 - Exposure, Vulnerability, Consequences --& Social Inequality
- Advocate for policies to reduce social disadvantage, based on effects on infectious disease exposure, susceptibility, access to Rx, & consequences